DOCUMENT RESUME

ED 236 547 CS 007 325

AUTHOR Jose, Paul E.; Brewer, William F.
TITLE The Development of Story Liking: Character Identification, Suspense, and Outcome Resolution. Technical Report No. 291.
INSTITUTION Bolt, Beranek and Newman, Inc., Cambridge, Mass.; Illinois Univ., Urbana. Center for the Study of Reading.
SPONS AGENCY National Inst. of Child Health and Human Development (NIH), Bethesda, Md.; National Inst. of Education (ED), Washington, DC.
PUB DATE Oct 83
CONTRACT 400-76-0116
NOTE 52p.; A version of this paper was presented at the Annual Meeting of the Midwestern Psychological Association (Chicago, IL, May 5-7, 1983). To appear in "Developmental Psychology."
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Affective Measures; Age Differences; Characterization; Childrens Literature; *Developmental Stages; Elementary Education; *Identification (Psychology); *Literature Appreciation; Models; *Reader Response; Reading Attitudes; *Reading Interests; *Reading Research
IDENTIFIERS Suspense Stories

ABSTRACT

To examine the effect of structural factors on the development of story appreciation, a developmental model of story liking for suspense stories was tested by having second, fourth, and sixth grade children rate suspense stories on 10 affective scales. Specifically, the model predicted that (1) reader identification would increase with greater perceived similarity between character and reader, (2) increased identification would lead to greater suspense, (3) liking of outcome would be a joint function of character valence and outcome valence, and (4) overall liking of story would increase with greater identification, greater suspense, and greater liking of outcome. Results revealed four causal links that operated in the appraisal process of evaluating a story. First, similarity was found to be a major basis for identifying with a character. Second, sympathetic caring for a strong character caused suspense when the character faced a significant consequence. Third, liking of the story's outcome was determined by resolution of suspense by a positive ending for young children and by the "just world" ending for older children. Fourth, overall liking of a story was found to be caused by identification with the story character, suspense, and liking of outcome. A strong developmental trend in evaluations of story endings was also found: young children preferred positive outcomes regardless of the valence of the character, but older children liked positive endings for good characters and negative endings for bad characters. (HOD)

ED236547

CENTER FOR THE STUDY OF READING

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

Technical Report No. 291

THE DEVELOPMENT OF STORY LIKING: CHARACTER IDENTIFICATION, SUSPENSE, AND OUTCOME RESOLUTION

Paul E. Jose and William F. Brewer

University of Illinois at Urbana-Champaign

October 1983

University of Illinois
at Urbana-Champaign
51 Gerty Drive
Champaign, Illinois 61820

Bolt Beranek and Newman Inc.
50 Moulton Street
Cambridge, Massachusetts 02238

The first author was supported by a NICHHD postdoctoral fellowship during the course of this research. This research was supported in part by the National Institute of Education under Contract No. HEW-NIE-C-400-76-0116. We wish to thank John Mirowsky and Robert Linn for statistical advice and Stella Vosniadou and Ellen Brewer for helpful comments on earlier versions of this paper. Sincere thanks go to the superintendents, teachers, and children of Washington and Jefferson Elementary Schools of Monticello, Illinois, Royal Elementary School of Prairie View District, Royal, Illinois, and Ogden Elementary School, Ogden, Illinios. A version of this paper was presented at the Midwestern Psychological Association conference in Chicago, May 1983. To appear in Developmental Psychology.

CS 007325

EDITORIAL BOARD

William Nagy
Editor

Harry Blanchard
Wayne Blizzard
Nancy Bryant
Pat Chrosniak
Avon Crismore
Linda Fielding
Dan Foertsch
Meg Gallagher
Beth Gudbrandsen
Anne Hay
Patricia Herman
Asghar Iran-Nejad
Margi Laff
Brian Nash
Theresa Rogers
Behrooz Tavakoli
Terry Turner
Paul Wilson

Abstract

A developmental model of story liking is proposed for suspense stories. The model predicts that: (a) reader identification increases with greater perceived similarity between character and reader; (b) increased identification leads to greater suspense; (c) liking of outcome is a joint function of character valence (good or bad character) and outcome valence (positive or negative outcome); and (d) overall liking of story increases with greater identification, greater suspense, and greater liking of outcome. The model was tested by having 2nd, 4th, and 6th grade children rate suspense stories on 10 affective scales. Results showed that similarity to character increased reader identification, and increased identification produced more suspense. A strong developmental trend in evaluations of story endings was found: young children preferred positive outcomes regardless of the valence of the character but older children liked positive endings for good characters and negative endings for bad characters. This finding was interpreted as evidence for acquisition of the "just world" belief. Overall story liking was predicted by independent contributions of character identification, suspense, and liking of outcome using path analysis. The results supported the proposed model of story appreciation.

The Development of Story Liking:
Character Identification, Suspense, and Outcome Resolution

Children's story preferences change as they become older; this may be due to changing preferences for content or to structural characteristics of stories. This paper examines the effect of structural factors on the development of story appreciation in order to answer some basic questions about the development of affective responses to stories: Which character attributes lead to strong reader identification? How does reader identification affect the reader's feeling of suspense and liking of stories? How do character valence (good or bad character) and outcome valence (positive or negative outcome) affect the reader's enjoyment of stories?

In recent years the dominant psychological theory of stories has been the story grammar approach (Mandler & Johnson, 1977; Rumelhart, 1975; Stein & Glenn, 1979). Story grammars analyze stories in terms of a sequence of categories (e.g., internal response, attempt, outcome) that represent the plans underlying the goal-directed actions of the protagonist. These theories do not take the reader's affective responses into account and so are unable to explain the reader's feeling of suspense or identification with a story character.

The structural-affect theory of stories (Brewer & Lichtenstein, 1981, 1982, Note 1), attempts to incorporate reader affect into an overall theory of the story schema. Brewer and Lichtenstein have argued that story grammars are descriptions of goal-directed event sequences and do not describe the unique properties that distinguish the subclass of

stories from the larger class of coherent narratives. They postulate that the crucial characteristic that distinguishes stories from narratives is that stories are structured to evoke a particular affective response pattern in the reader. They have described three different types of story discourse structures that elicit three distinct affective responses: suspense, surprise, and curiosity. We have chosen to focus on the suspense discourse structure because it is the most common of the three and also because the process of character identification is very important in this type of story.

Brewer and Lichtenstein (1981, 1982) propose that if a text's discourse structure has the potential to arouse and resolve an affective response it will be judged to be a story, and that if it succeeds in arousing and resolving the reader's affective response it will be liked (see also Berlyne, 1971 and Zillman, 1980). The discourse structure for suspense stories begins with an initiating event that alerts the reader that a significant consequence could happen to the story's protagonist. The uncertainty and anticipation of possible outcomes leads the reader to feel suspense. The discourse structure for suspense stories provides a resolution at the end of the story, and the overall pattern of arousal and resolution leads to a pleasurable feeling.

The structural-affect theory must be elaborated in several respects in order to explain the reader's identification with story characters. We claim that suspense is not merely uncertainty about the outcome. A story may describe someone discovering a damp book of matches in a forest. The uncertainty of whether a match will strike does not by itself cause suspense, but if the discoverer is a hiker lost in a

blizzard then the uncertainty would be likely to cause suspense. The difference is that in the second case the outcome constitutes a significant consequence for the character.

Additionally, it is important that the reader care about the character who will experience a significant consequence. A narrative that describes a deserted shack containing only an ordinary chair that is threatened by an oncoming avalanche will not arouse much suspense in the reader. Despite the significant consequence for the chair, readers will not feel suspense because they do not substantially care about the chair. If, however, the occupant of the shack is a person, then the reader is much more likely to feel suspense. Similarly, if there are two human characters in a story, readers are likely to feel more suspense when the better liked character experiences danger.

Literary scholars have used the term character identification to describe the process whereby readers put themselves in the place of a character and experience what the character feels (Altenbernd & Lewis, 1969). There is considerable agreement among literary scholars that the greater the degree of similarity between the reader and the character, the greater the degree of identification that will result (Altenbernd & Lewis, 1969; Perrine, 1959). We tested this hypothesis in the present study by including three character attributes that seem particularly important in perceptions of similarity: age, sex, and character valence (good or bad character).

In the structural approach to story appreciation the problem of the interaction of character valence (good or bad character) and outcome resolution (positive or negative outcome) must also be considered.

Friedman (1975) and Chatman (1978) have argued that narratives structured so that good characters experience positive endings and bad characters experience negative endings are intrinsically satisfying, whereas narratives structured so that good characters experience negative endings and bad characters experience positive endings are intrinsically unsatisfying. We claim that readers' intuitions about satisfying endings derive in part from a sense of moral justice. Lerner's "just world hypothesis" describes the belief system which guides the moral evaluation of outcomes in the real world (1980; Lerner, Miller, & Holmes, 1976). He claims that the moral attitude of expecting good to triumph and evil to fail is pervasive in social judgment. The just world hypothesis predicts that readers will prefer stories structured so that good characters obtain positive outcomes and bad characters obtain negative outcomes over the positive character-negative outcome and bad character-positive outcome stories.

Lerner, Miller and Holmes (1976) speculate that the genesis of the just world belief occurs early in the moral development process. Children learn to expect that their misbehavior will be punished and good behavior rewarded. This belief becomes generalized so that it pertains to everyone the child knows, including characters in stories. Judgment of the just world in stories involves considering two types of information at the same time: character valence and outcome valence. Young children may not combine both types in the mature judgment for a number of reasons: they may have not learned yet that both of these two factors are involved in evaluating outcomes, or they may be unable to combine two sources of information in the judgment process. Zillman and

Cantor (1977) have reported data of 2nd and 3rd graders' appreciation of positive and negative outcomes that occur to good and bad story characters. From our perspective their data show that their subjects used an immature form of just world reasoning; outcome valence exerted more influence on the outcome liking judgment than character valence. Thus, we expected to find a developmental progression during the grade school years of better integration of the two types of information.

There is evidence which suggests that children's appreciation of suspense in stories also developes. Research with adult subjects (Brewer & Lichtenstein, 1981; Note 1) has demonstrated that the structural mechanisms that stimulate and resolve suspense in stories powerfully increase story liking. Zillman, Hay, and Bryant (1975) have shown the same finding in 7 and 8 year old children. Research on changing story preferences of children during early childhood (Ashley, 1972; Robinson & Weintraub, 1973) suggests that older elementary school children appreciate suspense more. Thus, we predict that suspense will more strongly cause story liking for older children.

We systematically varied the age, gender, and character valence (good or bad character) of story characters in order to provide a test of whether perceived similarity increases identification. Character identification, in turn, was predicted to increase suspense. Also, character identification and suspense were expected to have independent effects in increasing overall liking for story. In order to assess the development of the just world belief in the liking of outcomes, stories were written in which character valence and outcome valence were systematically combined to result in four types of stories: a good or bad

character in a story received either a positive or negative outcome. It was expected that the outcomes in the good character-positive outcome and bad character-negative outcome stories would be liked more than the outcomes in the other two combinations. Data by Zillman and Cantor (1977) suggest that 2nd and 3rd graders use an immature form of just world reasoning. We tested 2nd, 4th, and 6th graders to assess developmental changes in the just world belief.

Method

Subjects

Participants in this study were second semester 2nd, 4th, and 6th grade children. Mean ages and age ranges were: 2nd Grade (M = 7.2; 6.1 to 8.4), 4th Grade (M = 9.3; 8.1 to 10.5), and 6th Grade (M = 11.3; 10.3 to 12.9). Equal number of males and females were tested at each grade level: 44 2nd graders, 64 4th graders, and 64 6th graders.

Procedure

Fourth and sixth grade classes were given packets of four stories to read in their normal classroom situation. Each story was about three pages long each, and was followed by two pages of questions. Sixth graders took, on the average, about 20 minutes to read the four stories and answer the questions, and the fourth graders took about 30 minutes. Second graders were individually tested in a room outside the classroom. Three stories were read to the children as well as the questions. Testing time was approximately 30 minutes. The 2nd graders were read the stories and tested individually because pretesting indicated that they experienced great difficulty in reading the written stories and using the measurement scales by themselves, whereas the 4th and 6th graders did so

fairly readily. It was thus necessary to read the stories to the 2nd graders in order to increase the uniformity of story comprehension across the grades.

Materials

Four base stories were written to elicit an affective response of suspense in the reader. Using Brewer and Lichtenstein's (1981, 1982, Note 1) structural- affect theory of stories as a guide, each base story was written so that the main character faced a significant consequence in the story (see Appendix A for a sample story text). After introductory material and two paragraphs of characterization, the character was either endangered or lost a valuable object. The suspense was resolved in each case with either a positive or negative outcome ending. Four independent variables determined the attributes of the main character in the stories and the outcome of the story: (a) sex of character, (b) age of character (adult vs. child) (c) character valence (good vs. bad), and (d) outcome valence (positive vs. negative ending). These four variables were completely crossed, resulting in 16 versions of each base story.

Character gender. Characters' gender was described by giving the characters clearly masculine or feminine names and referring to them with gender-marked pronouns. Care was taken in writing stories to avoid any sex-stereotyped actions so that the male and female versions would be equally plausible stories.

Character age. Story characters were portrayed as either adults or children. Adults were referred to with the adult title, e.g., "Mr. David Collins," in the first line of the story and with the first name only thereafter. Several references were made in the characterization section

about the character's wife or husband, children, type of employment, and age. Two other references to age were made in the latter part of the story. The child characters were described to be of an unspecified grade school age, and several references to them interacting with their friends at school reinforced this description. As with sex of character, the stories were written so that the actions of the characters would be equally plausible for either age. The four stories described the character: (a) going with friends to a cabin in the woods for the weekend, (b) going skiing for the first time, (c) losing some paper money on a windy day and chasing it, and (d) cleaning out garbage from a garage. These actions were thought to be sufficiently neutral and amenable to stories with male or female characters of either child or adult age.

Character valence. Character valence was indicated by recounting several incidents of either good or bad behavior in the characterization section. For instance, the bad child in the "Spider" story lied to his or her classmates, hit them, "told on" them to the teacher, and was described as being inconsiderate to other people and self-centered. Good characters were described as honest, friendly, helpful, likeable, and considerate, and these attributes were illustrated with concrete examples of behavior. For adult characters these characterizations were rewritten slightly to make them appropriate for older persons.

Outcome valence. The narratives ended with either a positive or a negative outcome. Positive outcomes were fortuitous avoidance of physical harm or loss: the main character was not bitten in the "Spider" story, fell down but was not hurt in the "Skiing" story, successfully ran

away from a swarm of bees in the "Bees" story, and successfully recovered lost money in the "$100 Bill" story. In the negative outcomes, the main character was hurt by the spider, bees, or the skiing accident, and lost the $100 bill. The described injuries were serious and painful but not life-threatening.

Manipulation checks. Ratings of a random sample of the stories (36 out of the total 64) by a group of adult subjects verified that the descriptions of the character and the outcome were unambiguous. Using a seven-point scale, 1 = "not at all" and 7 = "very," the characters' sex and age were judged to be clearly described ($\underline{m}$ = 6.8 and $\underline{m}$ = 6.6 respectively), and the characters' actions were judged to be plausible for their sex and age ($\underline{m}$ = 6.0 and $\underline{m}$ = 5.4). Character valence was accurately categorized (96%), as was outcome valence (97%). Good characters were judged to be very good ($\underline{m}$ = 6.3) and the bad characters were very bad ($\underline{m}$ = -6.2). Positive outcomes were judged to be very positive ($\underline{m}$ = 6.3) and negative outcomes were very negative ($\underline{m}$ = -6.3).

Design

The overall design included six completely crossed factors: Grade of Subject (3) X Sex of Subject (2) X Sex of Character (2) X Age of Character (2) X Character Valence (2) X Outcome Valence (2). Sixteen versions of each of the four base stories were written for each possible combination of Sex of Character, Age of Character, Character Valence, and Outcome Valence.[1] Each of the 6th and 4th grade subjects received four stories and each 2nd grade subject received three stories, each from a different base story. Each 4th and 6th grade subject received one of each of the following combinations: a good character-positive outcome

story, a good-negative, a bad-positive, and a bad-negative. Second graders received three of these four story types chosen at random within the constraints of the balanced design. Also, 4th and 6th grade subjects received stories equally divided by sex of character and age of character.

Dependent Variables

After each story the children were asked 10 questions concerning how they felt about the story. The children made their responses on a seven-point scale. To make responding easier for the younger children the numbers were placed in a graded series of boxes: #1 was in the smallest box and #7 was in the largest box. Explicit instruction and practice in how to use the scale insured that all respondents knew how to use it. The following questions are listed in the order they were asked: (1) Perceived similarity. The main character in this story is X. How much like X do you think you are? In other words, how similar do you think you are to this character? (2) Like character. How much did you like X? (3) Become character. Sometimes when you read a story you actually see yourself as the story character. In a funny sort of way you become the other person. Did you see yourself as X or not? (4) Suspense. When X was in danger in the story, how much did you worry about how the story would come out? (5) Like outcome. How much did you like the ending of the story? (6) Like story. How much did you like the story? (7) Care About Character. When you read a story you usually either care about what happens to the character or you don't. How much did you care about what happened to X in this story? (8) Exciting. Did you think the story was exciting? (9) Surprising. Did you think the

story was surprising? (10) Sad. Did you think the story was sad?

Results

To test whether base story form or order of presentation had any systematic effect, Scheffe post-hoc tests (using $p = .05$) were performed on all 10 dependent variables. No significant differences were found between the four base stories or for order of presentation. Each dependent variable was analyzed with the six-factor ANOVA design: Grade of Subject (3) X Sex of Subject (2) X Sex of Character Age of Character (2) X Character Valence (2) X Outcome Valence (2). (See Table 1 for means of the main effects.) Since the character and outcome factors were not completely crossed with subjects, all factors were considered as between subject factors in the analysis. A conservative level of significance ($p = .01$) was chosen because of the large number of observations. The results of the three descriptive variables, Exciting, Surprising, and Sad, are not reported because they were not involved in any major predictions. They were useful as manipulation checks, however, and helped verify that character valence and outcome valence were perceived by the subjects as intended.

Insert Table 1 about here

A consistent finding for most of the dependent variables was a Grade of Subject main effect; the younger subjects gave higher ratings than older subjects. This "Pollyanna" effect was not of major interest because it may be attributable to a higher motive of social desirability for younger children, to individual testing of the 2nd graders, or to the content of the stories being more interesting to younger subjects. The

results involving interactions with Age of Subject are of greater interest.

(1) Perceived Similarity. As expected, subjects strongly perceived more similarity to good characters than to bad characters, $F(1,542) = 167.1$, $p < .001$. Also, a significant Sex of Subject X Sex of Character interaction was found, $F(1,542) = 11.21$, $p < .001$, which indicates that girls felt greater similarity to female characters and boys to male characters.

(2) Like Character. The Character Valence main effect, $F(1,542) = 643.1$, $p < .001$, was very strong in the predicted direction: good characters were better liked. The significant Sex of Subject X Sex of Character interaction, $F(1,542) = 9.51$, $p < .005$, shows that same-sex characters were better liked.

(3) Become Character. Character Valence, $F(1,541) = 78.5$, $p < .001$, again showed a significant main effect in the expected direction--readers more readily took the perspective of good characters. The Sex of Subject X Sex of Character interaction was significant, $F(1,541) = 6.63$, $p < .01$, reinforcing the importance of gender similarity.

(4) Suspense. The Character Valence effect, $F(1,541) = 68.3$, $p < .001$, indicates that more suspense was felt during stories that featured good characters.

(5) Like Outcome. Outcome Valence, $F(1,541) = 35.5$, $p < .001$, strongly affected liking of outcome: positive outcomes were preferred over negative outcomes. The Grade X Outcome Valence interaction, $F(2,541) = 15.7$, $p < .001$, showed that this preference was most pronounced in the youngest subjects and almost disappears by 6th grade.

The Character Valence X Outcome Valence interaction, $F(1,541) = 26.7$, $p < .001$, illustrated that liking of outcome depended upon which type of character received which type of outcome. A positive outcome for a good character was liked ($m = 5.82$), but a negative outcome for a good character was disliked ($m = 3.97$); the two outcomes for the bad character were rated in between (positive = 4.58, negative = 4.45). The Grade X Character Valence X Outcome Valence interaction, $F(2,541) = 5.65$, $p < .005$, supports the prediction that children of different ages would show a distinctive pattern of means for the interaction of these two variables (see Table 2). Second graders displayed a preference for positive outcomes over negative outcomes, the fourth graders evidenced the pattern noted above for the entire subject population, and the sixth graders showed the pattern predicted by the just world hypothesis: positive outcomes for good characters and negative outcomes for bad characters were liked more than the other two combinations.

Insert Table 2 about here

---

(6) Like Story. The Character Valence main effect, $F(1,539) = 35.9$, $p < .001$, shows that stories with good characters were liked more than ones with bad characters.

(7) Care about Character. A main effect for Character Valence was found, $F(1,540) = 100.9$, $p < .001$, which indicates that readers cared about good characters more than bad ones.

Structural Model

We can draw five general conclusions from the ANOVA results. First, gender similarity between character and reader led to increased perceived

similarity, liking of character, and seeing oneself as the character (Become Character). Second, Age of Character, which was predicted to affect these same variables, did not yield significant differences. Third, Character Valence proved to be a powerful variable; it caused main effects or was involved in interactions for all ten of the dependent variables. Principally, it led to greater perceived similarity, identification, suspense, and liking of the story. Fourth, Outcome Valence only caused differences in liking of outcome. And fifth, the interaction of Character Valence and Outcome Valence affected liking of the outcome, particularly for the older subjects. Except for the lack of age similarity effects, all findings were predicted.

However, the ANOVA results do not answer a number of other important questions posed earlier. Do readers who perceive similarity between themselves and story characters also like and take the perspective of the characters more? If a reader identifies with the story character, will this lead to increased suspense? Do readers who feel more suspense during a story like the story more? And finally, which of these numerous variables best predicts overall story liking? The ANOVA results cannot answer these questions since none of these variables mentioned were manipulated in the design. Path analysis is an effective analytic method in cases where non-manipulated variables are predicted to affect each other in a temporal causal sequence (Duncan, 1975; Kenny, 1979). If one has a theory that postulates a causal ordering between variables, the predicted causal model can be empirically tested with the path analysis method.

Predictions. The predicted model of story liking for the variables

measured in this experiment is shown in Figure 1. The first prediction is that three exogenous variables, Character Valence, Age Similarity, and

---

Insert Figure 1 about here

Gender Similarity will all lead to greater Perceived Similarity. Second, Perceived Similarity should increase identification with the character, measured by Like Character and Become Character.[2] Identifying with the character, in turn, should increase Suspense since readers should feel more concern about these characters. Fourth, a reader's liking of the outcome of the story should be determined by the Just World belief[3] and Suspense. The contribution of Suspense on Like Outcome results from the fact that suspense is resolved by the outcome. And finally, Like Story should be caused by identifying with the character, feeling suspense, and liking the outcome.

The procedure for testing this overidentified recursive model was to employ a series of hierarchical multiple regressions to determine significant patterns of covariance between variables. A backwards deletion method was used, with those variables whose coefficients met the criterion of $p \leq .10$ being retained for subsequent regressions. For example, testing of the causal paths to the variable, Suspense, required three steps: all exogenous variables on Suspense, retained variables from step 1 plus Perceived Similarity on Suspense, and retained variables from step 2 plus the two identification variables on Suspense. Those path coefficients with a $p < .05$ will be reported; they are represented in the figures by solid arrows. Since the main concern of the present study is with developmental changes in story liking processes, results of the

structural models are reported by grade. Also, because the number of observations in the 2nd grade is half that of the 4th and 6th grades unstandardized regression coefficients and the standard error of measurement are reported instead of beta weights.

Results. In a first inspection of the three path models summarizing the three grade groups (see Figures 2, 3, and 4) it is evident that the predicted model is largely substantiated, particularly for the older

---

Insert Figures 2, 3, and 4 about here

---

groups. The chi-square statistic has been proposed as a sensitive test for measuring the discrepancy between estimated values (in this case the derived model) and obtained values (Land, 1973; Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) A small value of chi-square indicates a good fit between the model and the actual data. A chi-square test performed on the three age group models demonstrated a close fit between estimated and obtained values (2nd grade: $\chi^2(34) = 14.95$, $p > .90$; 4th grade: $\chi^2(30) = 5.31$, $p > .90$; and 6th grade: $\chi^2(28) = 7.39$; $p > .90$). Unstandardized regression weights and the standard error of measurement are reported for each significant path included in the three path models. The significance level, amount of explained variance, size of sample, and intercept for each included variable are reported in Appendix B.

Character valence and similarity in gender and age were predicted to lead to greater perceived similarity. Subjects perceived similarity primarily on the basis of whether the character was good or bad, and there was only weak contribution from the other two variables. These paths replicate the character valence and gender similarity findings

reported in the ANOVA section above. As predicted, Perceived Similarity caused significantly greater identification, even at the earliest age. However, Character Valence had a direct influence on identification in addition to its indirect effect through Perceived Similarity. It was hypothesized that all of the effect of the three character traits would be mediated by Perceived Similarity, but subjects also liked an aspect of the good characters' nature that was distinct from perceived similarity. The same was found for taking the perspective of the character, Become Character.

The engendering of suspense changed with age. The models for 2nd and 4th graders show that only sympathetic identification, Like Character, caused greater suspense, but by 6th grade both identification variables affected it. Also, the relation between sympathetic identification, Like Character, and Suspense becomes stronger over these four years suggesting that caring about a character became more important with age.

One determinant of Like Outcome followed a clear developmental pattern: the just world belief system. The three-way interaction of Grade, Character Valence, and Outcome Valence reported earlier in Table 2 is described by the three path models. Second graders rely primarily on outcome information, but by 4th grade readers begin to make a moral judgment about who should receive positive and negative outcomes. By 6th grade, the mature form of the just world belief dominates. Another developmental finding was that suspense did not predict Like Outcome until 6th grade. This indicates that resolution of suspense, e.g., Outcome Valence and Just World, strongly affects the judgment of outcome

liking, but unresolved suspense alone increases outcome liking only in a small way.

The endpoint of the model, overall story liking, shows three developmental trends. First, the 2nd graders' path model includes a path from Perceived Similarity directly to Like Story. By 4th grade the more mature form is evident; similarity exerts an indirect influence on story liking through character identification. Thus, older children are better able to integrate the processes of perceiving similarity between themselves and characters, identifying with the characters, and liking the story. Second, unresolved suspense does not contribute a significant amount of unique variance to story liking in 2nd grade but by 4th grade it does. Although identification influenced suspense in 2nd graders this heightened suspense does not directly increase story liking; instead it only has an indirect effect through liking of outcome. Thus, it seems that 4th and 6th graders like stories if they are suspenseful regardless of how they are resolved, but 2nd graders prefer suspenseful stories that are resolved with a happy ending. Third, empathic identification, the Become Character variable, does not become part of the story liking process until the 6th grade when it begins to have an indirect effect through suspense. The measurement of empathic identification is perhaps less reliable for young children due to their less developed meta-cognitive skills, so this apparent developmental trend may be more due to measurement difficulty than to a true developmental progression.

In sum then, children display an increasing sophistication over the four years from 2nd to 6th grade in their ability to integrate several affective appraisal processes in their determination of how much they

like a story.

Discussion

The proposed model of story liking was substantially validated by the data. Four critical causal links were demonstrated to operate in the appraisal process of evaluating a story. First, similarity was found to be a major basis for identifying with a character. Second, sympathetic caring for a story character caused suspense when the character faced a significant consequence, a finding predicted by a number of investigators (Brewer & Lichtenstein, 1981; Tannenbaum & Gaer, 1965; Zillman, Hay, & Bryant, 1975). Third, liking of the story's outcome was determined by resolution of suspense by a positive ending for young children and by the just world ending for older children (Friedman, 1975; Lerner, Miller, & Holmes, 1976; Tannenbaum & Gaer, 1965; Zillman & Cantor, 1977). The data showed a clear developmental progression in the acquisition of this belief. And fourth, overall liking of story was found to be caused by identification with the story character, suspense, and liking of outcome, showing that each of the three major components of the theory made an independent contribution to the final evaluation of the story.

Of particular interest are the developmental changes in the model. One path noted in the 2nd graders' model that was not found in the older grades was the direct influence of perceived similarity on liking of the story. Children at this age apparently have not yet interposed the affective processes of identifying with a character and feeling suspense between perceived similarity and story liking; they simply liked stories if the character was similar to themselves. Also, the 2nd graders' data failed to support a causal link between suspense and liking of the story;

suspense had only an indirect influence through liking of outcome. This suggests that the 2nd graders did not appreciate general suspense, only suspense that was resolved with a positive outcome. The older children seemed to like unresolved suspense as well as resolved suspense.

The third and most robust developmental finding concerned liking of outcome. The three age groups show the gradual acquisition of the just world belief. The 2nd graders relied almost entirely on outcome information to determine their liking for the story ending. The fourth graders' ratings reflected a tendency to combine character valence and outcome valence in making liking judgments about story endings, but outcome information still exerted a dominant influence. The sixth graders showed the ability to integrate the two sources of information in a pattern reflecting the just world belief. One might argue that the 2nd graders had simply forgotten the character valence information by the time they were asked to evaluate the outcome. However, this seems unlikely because the ANOVA results indicate that all subjects equally relied upon character valence information in determining liking of character; thus, the 2nd graders apparently remembered this information as well as the older subjects.[4] Also, other evidence (Anderson & Butzin, 1978) suggests that it is unlikely that the 2nd graders were cognitively unable to combine two types of information in the judgment. It is more likely that the younger children had not yet developed the just world belief that character valence should be involved in evaluation of outcomes; instead, they just liked positive outcomes. Comparison of these outcome liking data with those of Zillman and Cantor (1977) shows that their sample of 2nd and 3rd grade children displayed an intermediate

form of the just world judgment similar to the 4th graders' of the present study. By testing over a 4 year age span we were able to trace the genesis of the just world belief from an exclusive reliance on outcome valence information to a mature evaluation which involved a balanced integration of character valence and outcome valence.

Reliance on outcome information is a distinguishing characteristic of Piaget's (1932/1965) concept of "moral realism." Moral development research which has studied the intention-outcome link in moral judgments shows that children before the age of seven or eight base judgments of naughtiness, i.e., character valence, on the seriousness of the outcome, largely ignoring intentions of the actor (Karniol, 1978; Keasey, 1978). In contrast, this study used character valence as an independent variable and tested liking of the outcome as the dependent variable. Despite this difference, the results of the present study are similar to these findings: the seven-year olds primarily used outcome information to evaluate outcomes, whereas the older children showed an increasing ability to take character attributes into account in making the evaluation. However, the present findings more closely resemble Piaget's (1932/1965) description of "immanent justice" wherein adversities are perceived to be caused by prior misbehavior even in cases where causation is logically impossible (see also Karniol, 1980). Further work will be needed to trace the similarities and differences between immament justice, the intention-outcome link, and story-based moral evaluations, and to avoid possible artifacts that have been found in previous work (e.g., order effects [Austin, Ruble, & Trabasso, 1977]).

We have proposed and tested a model of story liking derived from the

structural-affect theory of stories (Brewer & Lichtenstein, 1981, 1982). The model involves three major affective processes: identification with the story character, suspense, and liking of the outcome. All three were found to contribute to liking of the overall story, and all were found to become better integrated in the overall process over the 4 year age span from 2nd to 6th grade.

Reference Note

1. Brewer, W. F., & Lichtenstein, E. H. An affective and structural theory of the reader's story schema. Manuscript submitted for publication, 1982.

References

Altenbernd, L., & Lewis, L. L. Introduction to literature: Stories (2nd ed.). New York: Macmillan, 1969.

Anderson, N. H., & Butzin, C. A. Integration theory applied to children's judgments of equity. Developmental Psychology, 1978, 14, 593-606.

Ashley, L. F. Children's reading and the 1970's. Toronto: McClelland & Stewart, 1972.

Austin, V. D., Ruble, D. N., & Trabasso, R. Recall and order effects in children's moral judgments. Child Development, 1977, 48, 470-474.

Berlyne, D. E. Aesthetics and psychobiology. New York: Appleton-Century-Crofts, 1971.

Brewer, W. F., & Lichtenstein, E. H. Event schemas, story schemas, and story grammars. In J. Long & A. Baddeley (Eds.), Attention and performance, Vol. 9. Hillsdale, N.J.: Erlbaum, 1981.

Brewer, W. F., & Lichtenstein, E. H. Stories are to entertain: A structural-affect theory of stories. Journal of Pragmatics, 1982, 6, 473-486.

Chatman, S. Story and discourse: Narrative structure in fiction and film. Ithaca, N.Y.: Cornell University Press, 1978.

Duncan, O. D. Introduction to structural equation models. New York: Academic Press, 1975.

Friedman, N. Form and meaning in fiction. Athens, GA: Univ. of Georgia Press, 1975.

Holland, N. N. The dynamics of literary response. New York: W.W. Norton, 1975.

Karniol, R. Children's use of intention cues in evaluating behavior. Psychological Bulletin, 1978, 85, 76-85.

Karniol, R. A conceptual analysis of immanent justice responses in children. Child Development, 1980, 51, 118-130.

Keasey, C. B. Children's developing awareness and usage of intentionality and motives. In C. B. Keasey (Ed.), Nebraska Symposium on Motivation, Vol. 25. Lincoln: University of Nebraska Press, 1978.

Kenny, D. A. Correlation and causality. New York: Wiley-Interscience, 1979.

Land, K. C. Identification, parameter estimation, and hypothesis testing in recursive sociological models. In A. S. Goldberger & O. D. Duncan (Eds.), Structural equation models in the social sciences. New York: Seminar Press, 1973.

Lerner, M. J. The belief in a just world: A fundamental delusion. New York: Plenum Press, 1980.

Lerner, M. J., Miller, D. T., & Holmes, J. G. Deserving and the emergence of forms of justice. In L. Berkowitz & E. Walster (Eds.), Advances in experimental social psychology, Vol. 9. New York: Academic Press, 1976.

Lesser, S. O. Fiction and the unconscious. Boston: Beacon Press, 1957.

Mandler, J. M., & Johnson, N. S. Remembrance of things parsed: Story structure and recall. Cognitive Psychology, 1977, 9, 111-151.

Nie, N. H., Hull, C. H., Jenkins, J. G., Steinbrenner, K., & Bent, D. H. SPSS: Statistical package for the social sciences (2nd ed.). New York: McGraw-Hill, 1975.

Perrine, L. Story and structure. New York: Harcourt, Brace, 1959.

Piaget, J. The moral judgment of the child. New York: Free Press, 1965. (Originally published 1932.)

Robinson, H. M., & Weintraub, S. Research related to children's interests and to developmental values of reading. Library Trends, 1973, 22, 81-108.

Rumelhart, D. E. Notes on a schema for stories. In D. G. Bobrow & A. Collins (Eds.), Representation and understanding: Studies in cognitive science. New York: Academic Press, 1975.

Stein, N. L., & Glenn, C. G. An analysis of story comprehension in elementary school children. In R. Freedle (Ed.), New directions in discourse processing. Norwood, N.J.: Ablex, 1979.

Tannenbaum, P. H., & Gaer, E. P. Mood changes as a function of stress of protagonist and degree of identification in a film-viewing situation. Journal of Personality and Social Psychology, 1965, 2, 612-616.

Zillman, D. Anatomy of suspense. In P. H. Tannenbaum (Ed.), The entertainment functions of television. Hillsdale, N.J.: Erlbaum, 1980.

Zillman, D., & Cantor, J. R. Affective responses to the emotions of a protagonist. Journal of Experimental Social Psychology, 1977, 13, 155-165.

Zillman, D., Hay, T. A., & Bryant, J. The effect of suspense and its resolution on the appreciation of dramatic presentations. Journal of Research in Personality, 1975, 9, 307-323.

Footnotes

[1]The full set of stimulus stories which show how much emphasis each manipulated characteristic received can be obtained by writing to the first author.

[2]The variable, Care about Character, was highly correlated with Like Character (r = .55) and was thought in retrospect to measure the same construct, so only one of the two was chosen for inclusion in the path analysis. The two were not combined into a single variable because the resulting variable would have had a significantly reduced error of measurement in relation to the other variables.

[3]The contrast weights for Character Valence, Outcome Valence, and the Just World variable for the four cells: good character-positive outcome; good character-negative outcome; bad character-positive outcome and bad character-negative outcome, were 1, 1, -1, -1; 1, -1, 1, -1; and 1, -1, -1, 1 respectively. Thus, the Just World variable was orthogonal to all other exogenous variables.

[4]The means from the pertinent Grade of Subject X Character Valence interaction for liking of character, although nonsignificant, shows that the 2nd graders made a slightly <u>larger</u> distinction between good and bad characters than older subjects.

Table 1

Summary Table of Main Effect ANOVA Means for All Dependent Variables

Dependent Variable	Age of Sub.			Sex of Sub.		Sex of Char.		Age of Char.		Char. Valence		Outcome	
	2nd	4th	6th	Male	Fem.	Male	Fem.	Child	Adult	Good	Bad	Pos.	Neg.
Perceived similarity	2.9	3.4	3.3	3.2	3.2	3.3	3.1	3.3	3.1	4.2	2.3**	3.2	3.2
Like character	4.4	4.4	3.9*	4.2	4.3	4.3	4.2	4.2	4.3	5.9	2.6**	4.3	4.2
Become character	3.1	3.5	3.5	3.3	3.4	3.3	3.4	3.5	3.2	4.1	2.6**	3.4	3.4
Suspense	4.9	4.4	4.2*	4.4	4.6	4.5	4.4	4.5	4.5	5.1	3.8**	4.3	4.7
Like outcome	4.7	5.0	4.4	4.7	4.7	4.7	4.7	4.7	4.7	4.9	4.5	5.2	4.2**
Like story	6.0	5.5	4.8**	5.3	5.5	5.5	5.4	5.4	5.4	5.8	5.0**	5.4	5.5
Care character	5.0	4.7	4.2**	4.5	4.8	4.7	4.6	4.6	4.6	5.4	3.9**	4.5	4.7
Exciting	5.2	5.1	4.5*	5.0	4.9	5.0	4.8	4.9	5 0	5.3	4.5**	4.9	5.0
Surprising	4.6	4.5	3.8**	4.2	4.3	4.2	4.3	4.3	4.2	4.6	4.0*	4.4	4.1
Sad	3.7	2.5	2.3**	2.8	2.9	2.9	2.8	2.7	3.0	3.0	2.7	2.2	3.5**

Note. A seven-point scale was used for all dependent variables; 1 is the lowest value and 7 is the highest value.

* $p < .001$
** $p < .0001$

Table 2

Liking of Outcome:

Cell Means for the Grade by Character Valence

by Outcome Valence Interaction

Character Valence	Outcome Valence	
	Positive	Negative
2nd Grade [a]		
Good	6.19	3.78
Bad	5.44	3.31
4th Grade [b]		
Good	5.86	4.31
Bad	4.80	5.11
6th Grade [c]		
Good	5.41	3.83
Bad	3.52	4.94

Note. A seven-point scale was used to measure liking of outcome; 1 is the lowest value and 7 is the highest value. $F(2,541) = 5.65$, $p < .005$.

[a] $N = 128$

[b] $N = 250$

[c] $N = 256$

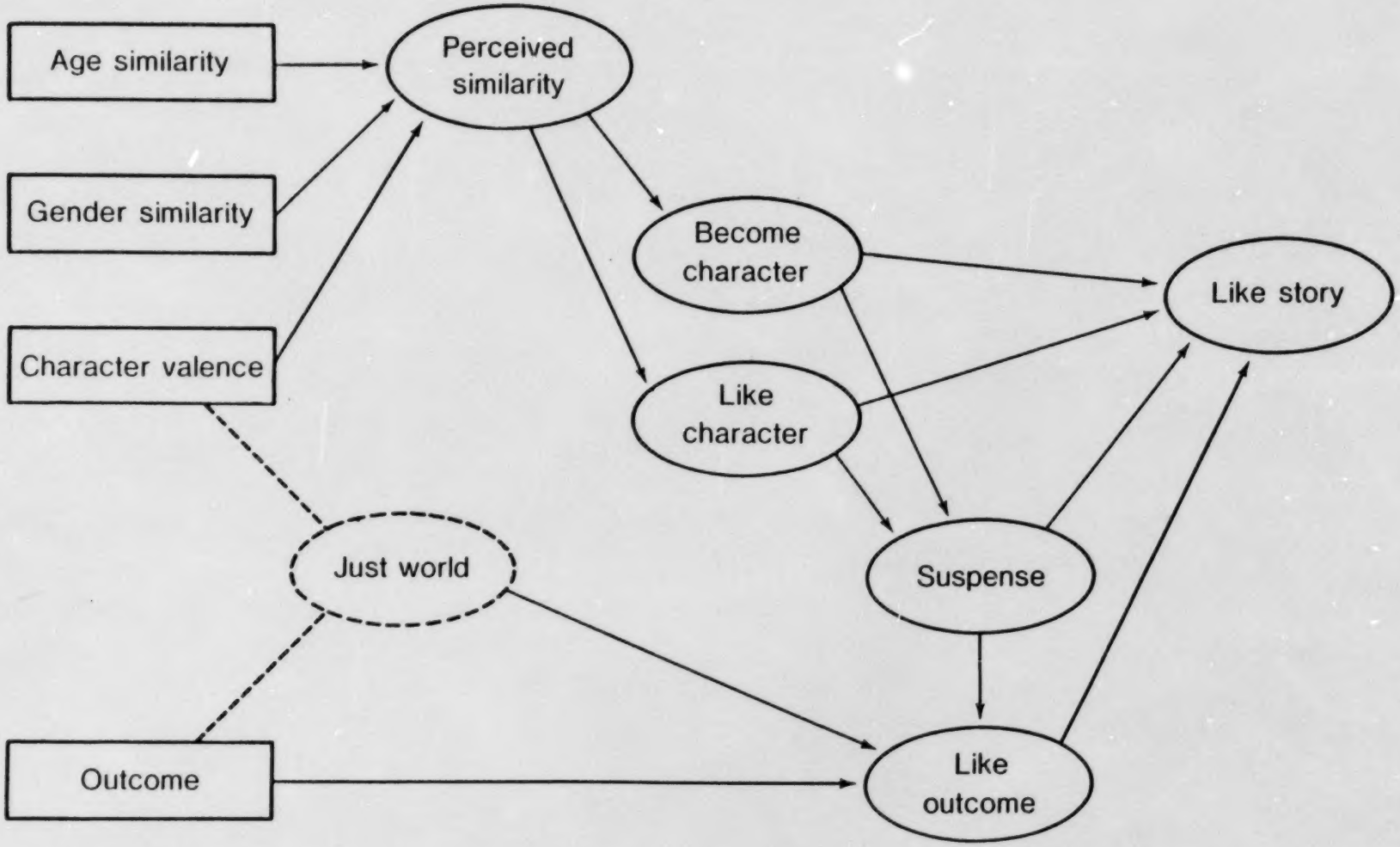
Figure Captions

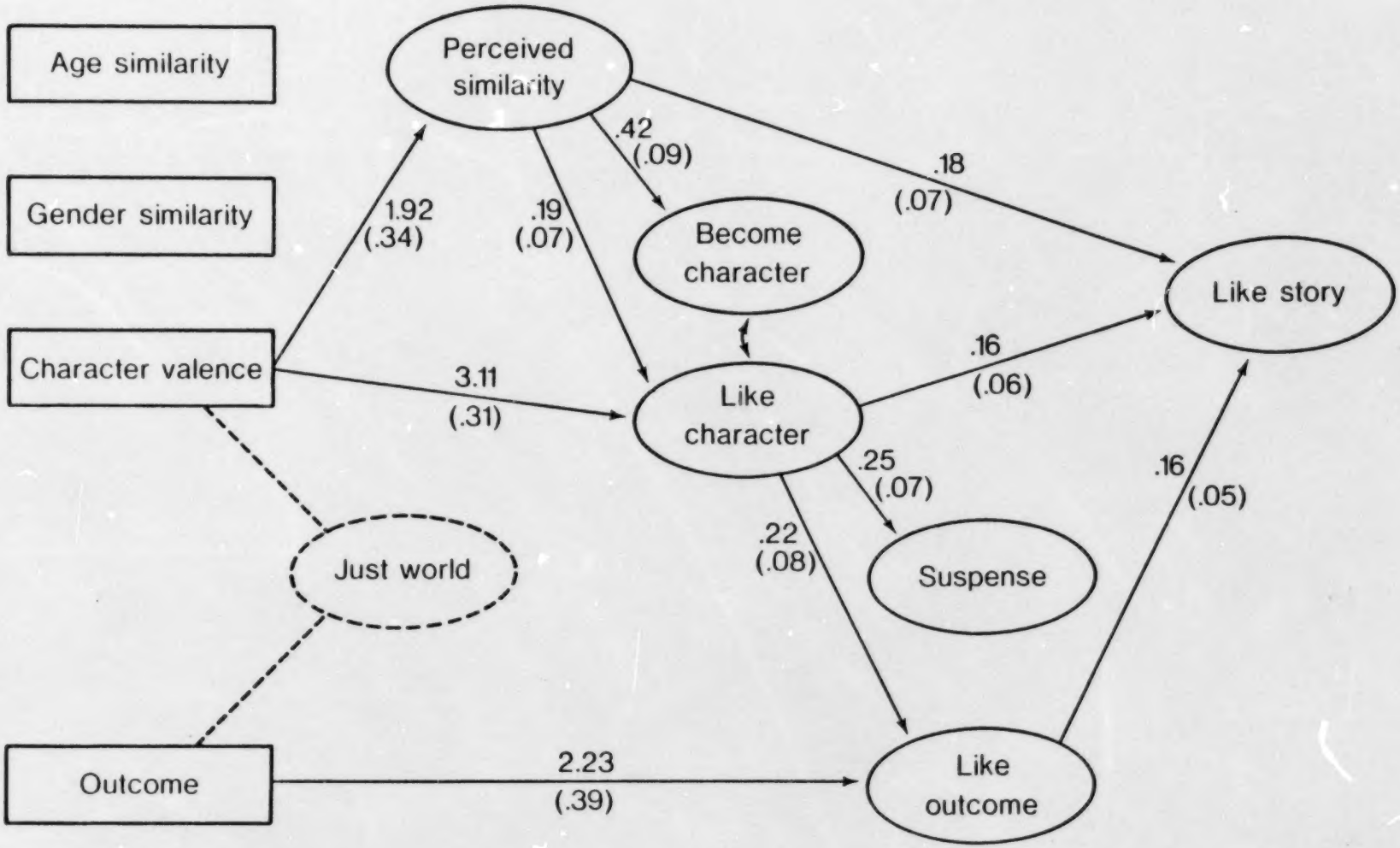
Figure 1. Predicted path model of story liking. Note: Independent variables are signified by rectangular boxes and dependent variables by ovals. The Just World variable is an orthogonal interaction term of Character Valence and Outcome Valence and is represented by a dotted oval. Solid arrows represent predicted paths.

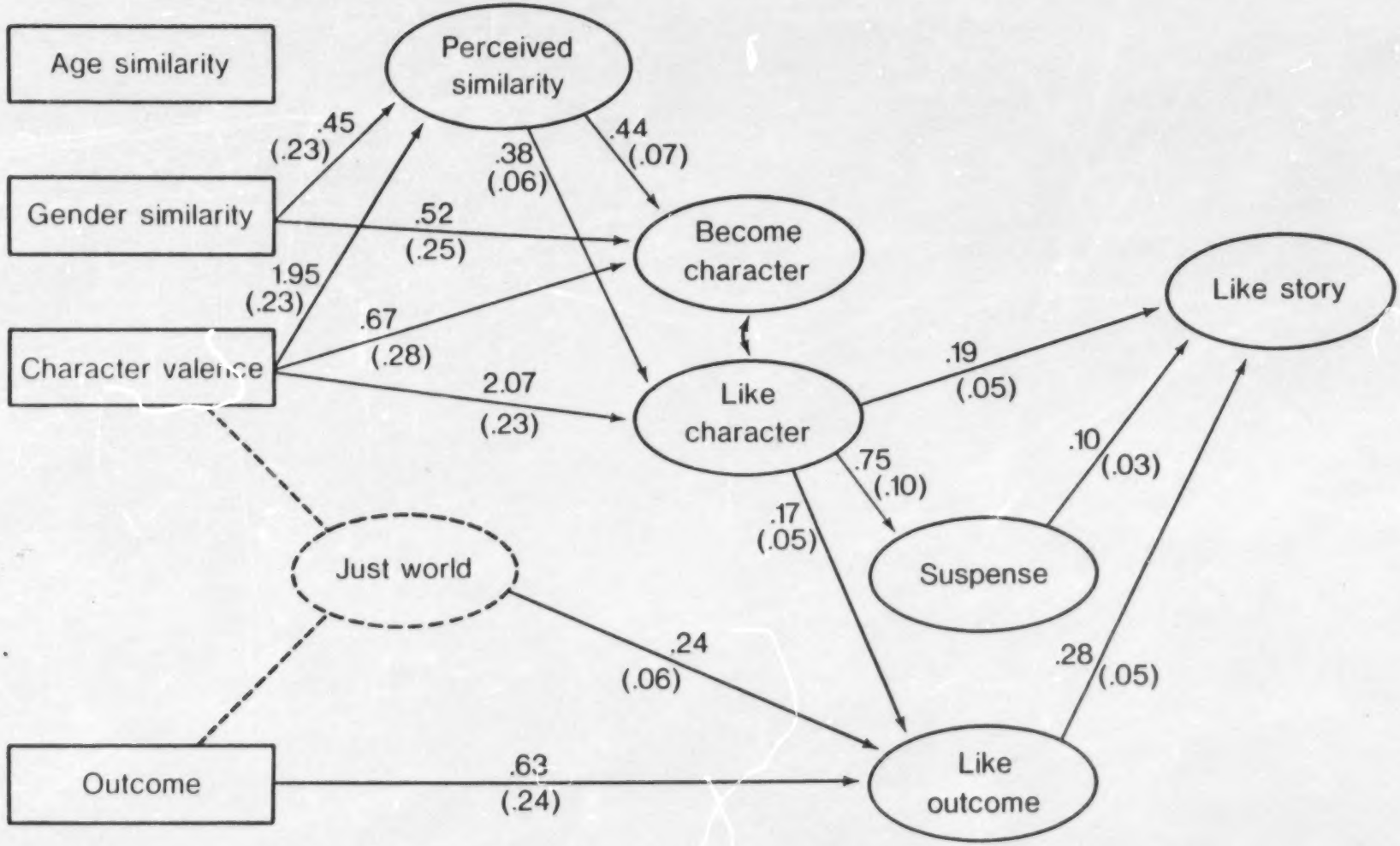
Figure 2. Derived path model of story liking for 2nd Grade. Note: Solid arrows signify paths significant at the $p < .05$ level or better. The first number of each pair of statistics is the unstandardized regression coefficient and the number in parentheses is the standard error of measurement. $N = 128$.

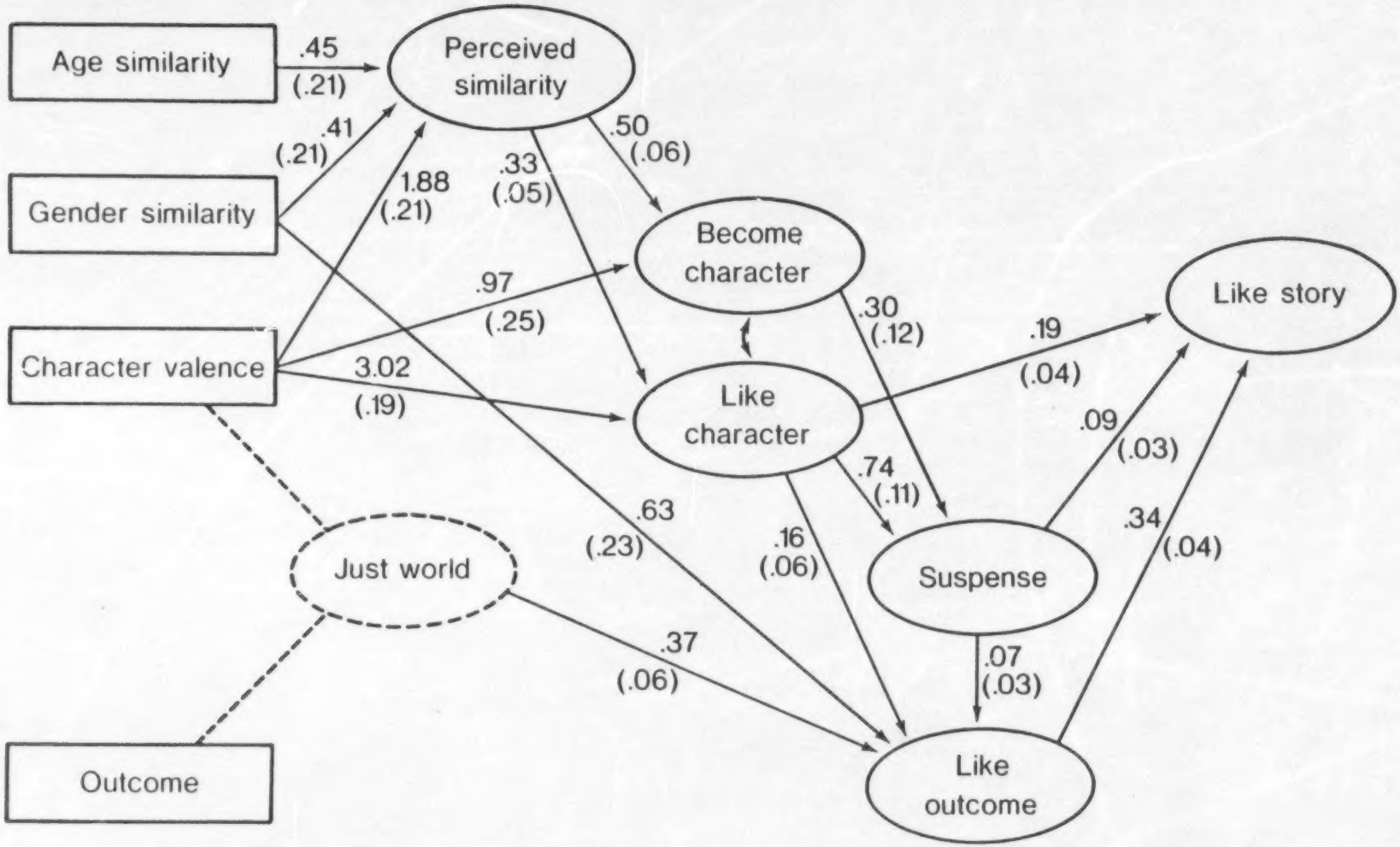
Figure 3. Derived path model of story liking for 4th Grade. Note: Solid arrows signify paths significant at the $p < .05$ level or better. The first number of each pair of statistics is the unstandardized regression coefficient and the number in parentheses is the standard error of measurement. $N = 256$.

Figure 4. Derived path model of story liking for 6th Grade. Note: Solid arrows signify paths significant at the $p < .05$ level or better. The first number of each pair of statistics is the unstandardized regression coefficient and the number in parentheses is the standard error of measurement. $N = 256$.


Age similarity
Gender similarity
Character valence
Outcome
Perceived similarity
Just world
Become character
Like character
Suspense
Like story
Like outcome


Age similarity
Gender similarity
Character valence
Outcome
Perceived similarity
Become character
Like character
Like story
Just world
Suspense
Like outcome
1.92
(.34)
.19
(.07)
.42
(.09)
.18
(.07)
3.11
(.31)
.16
(.06)
.25
(.07)
.22
(.08)
.16
(.05)
2.23
(.39)


Age similarity
Perceived similarity
Gender similarity
Become character
Like story
Character valence
Like character
Just world
Suspense
Outcome
Like outcome
.45
(.23)
.38
(.06)
.44
(.07)
.52
(.25)
1.95
(.23)
.67
(.28)
2.07
(.23)
.19
(.05)
.10
(.03)
.75
(.10)
.17
(.05)
.24
(.06)
.28
(.05)
.63
(.24)


Age similarity
.45
(.21)
Perceived similarity
.41
(.21)
Gender similarity
1.88
(.21)
.33
(.05)
.50
(.06)
Become character
.97
(.25)
.30
(.12)
Like story
.19
(.04)
Character valence
3.02
(.19)
Like character
.09
(.03)
.74
(.11)
.63
(.23)
.16
(.06)
.34
(.04)
Just world
Suspense
.37
(.06)
.07
(.03)
Outcome
Like outcome

Appendix A

Sample story -- "Spider"

(bad male child character and negative outcome)

Mike was talking to his cousin, Joe, when Joe asked, "Are you afraid of spiders?" Mike thought a little bit and said, "No, not really." Actually, Mike was afraid of spiders but he didn't want to tell his cousin that he was. Joe then asked Mike if he'd like to go to his family's cabin for the weekend. Joe's family had a small cabin back in the woods. It was used only a few times a year so they often found small animals in the cabin. Mice, bugs, and sometimes birds would live in the cabin. And often they would find enormous gray spiders crawling on the ceiling or under the beds.

Mike wanted to go to his friend's cabin and he wasn't going to be stopped by a spider. He told Joe that he would like to go. At school he told some of his classmates that he was going away for the weekend. They asked him where he was going. He said he was flying to Texas, which was a lie. Mike often tells lies to other people, mostly to the children in his class and to his teacher. And sometimes he tells the teacher about things that other children have done to get them into trouble. Most of the kids in Mike's class don't like him because he is mean to them. He also likes to hit other children. Children try hard to be friendly to Mike, but he only cares about himself.

On Saturday Joe's family drove up to the cabin. This time they didn't find any mice or birds in the cabin, but they found lots of bugs. After cleaning up the cabin a little everyone went outside to hike in the

forest. Mike didn't like hiking because he had to walk around so much. Mike is lazy. He wanted to just sit around. The rest of the group wanted to hike up a hill, but Mike complained. He complained about the heat, he complained that his feet hurt, and he complained that he was hungry. Because of Mike they had to go back to the cabin early. The rest of the group was disappointed. Mike didn't care; he likes making other people unhappy.

After supper they went to bed because it was late. Mike had a little room to himself. He went in and closed the door. He put his pajamas on and was about to get in the bed when he thought about the spiders. He looked carefully under the covers and didn't find anything. However, he didn't see the big gray spider on the ceiling in the corner. Feeling safe he turned out the light and got into bed. After awhile the large spider on the ceiling began to crawl down the wall. Mike tossed and turned a little in bed. When the spider reached the edge of the bed it slowly stepped onto the blanket. One furry leg at a time it silently walked across the blanket. Mike was just about asleep. He moved very little now. Mike started dreaming. He dreamed about throwing a cat in some water. The cat couldn't swim and was drowning in the water, but Mike just laughed at him. Even in his dreams Mike was mean.

Mike was asleep now. The spider continued walking across the blanket toward Mike's head. When it got to the edge of the blanket only inches away from Mike's face, Mike moved in bed. He put his bare arm outside of the covers right on top of the spider. The spider bit his hand several times and then crawled away. It quickly ran down one of the bed's legs and through a crack in the wall.

Mike didn't feel the bites because he was asleep. However, the next morning when he woke up he noticed that he felt awful. He had a burning fever and he felt sick to his stomach. He noticed his left hand was swollen to twice its normal size. It was red except for one small place where it was greenish in color. The hand ached with pain. Mike felt awful.

Appendix B

Summary Statistics for Path Models, Figures #2-4

2nd Grade	Dependent Variables											
	Perceived Similarity		Become Character		Like Character		Suspense		Like Outcome		Like Story	
Independent variables	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p
Age similarity												
Gender similarity												
Character valence	1.92 (.34)	.001			3.11 (.31)	.001						
Just world												
Outcome valence									2.23 (.39)	.001		
Dependent variables												
Perceived similarity			.42 (.09)	.001	.19 (.07)	.012					.18 (.07)	.008
Become character												
Like character							.25 (.07)	.001	.22 (.08)	.008	.16 (.06)	.014
Suspense												
Like outcome											.16 (.05)	.002
Intercept	-.91		1.84		-.77		3.76		.36		3.99	
R^2	.20		.16		.54		.09		.25		.25	
N	128		128		128		128		128		128	

Note. For each included variable three statistics are reported; unstandardized regression coefficient, level of significance, and standard error of measurement.

4th Grade	Dependent Variables											
	Perceived Similarity		Become Character		Like Character		Suspense		Like Outcome		Like Story	
Independent variables	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p
Age similarity												
Gender similarity	.45 (.23)	.050	.52 (.25)	.038								
Character valence	1.95 (.23)	.001	.67 (.28)	.018	2.07 (.23)	.001						
Just world									.24 (.06)	.001		
Outcome valence									.63 (.24)	.009		
Dependent variables												
Perceived similarity			.44 (.07)	.001	.38 (.06)	.001						
Become character												
Like character							.75 (.10)	.001	.17 (.05)	.002	.19 (.05)	.001
Suspense											.10 (.03)	.001
Like outcome											.28 (.05)	.001
Intercept	-.23		.19		-.02		5.40		3.29		2.29	
R^2	.23		.26		.48		.19		.11		.31	
N	255		255		255		255		255		255	

Note. For each included variable three statistics are reported; unstandardized regression coefficient, level of significance, and standard error of measurement.

Appendix B (Cont.)

6th Grade	Dependent Variables											
	Perceived Similarity		Become Character		Like Character		Suspense		Like Outcome		Like Story	
Independent variables	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p	b (se)	p
Age similarity	.45 (.21)	.035										
Gender similarity	.41 (.21)	.050							.63 (.23)	.006		
Character valence	1.88 (.21)	.001	.97 (.25)	.001	3.02 (.19)	.001						
Just world									.37 (.06)	.001		
Outcome valence												
Dependent variables												
Perceived similarity			.50 (.06)	.001	.33 (.05)	.001						
Become character							.30 (.12)	.012				
Like character							.74 (.11)	.001	.16 (.06)	.005	.19 (.04)	.001
Suspense									.07 (.03)	.037	.09 (.03)	.001
Like outcome											.34 (.04)	.001
Intercept	-.80		.42		-1.76		4.54		2.25		1.83	
R^2	.26		.20		.68		.27		.23		.40	
N	256		256		256		256		256		256	

Note. For each included variable three statistics are reported; unstandardized regression coefficient, level of significance, and standard error of measurement.